



# BIG SWITCH NETWORKS

THE NEXT-GENERATION DATA CENTER NETWORKING COMPANY

Big Switch Networks is the Next-Generation Data Center Networking Company. We disrupt the status quo of networking by designing intelligent, automated and flexible networks for our customers around the world.

## MANAGEMENT TEAM

**Douglas Murray**

Chief Executive Officer

**Kyle Forster**

Co-Founder

**Susheel Chitre**

VP of Business Development

**Prashant Gandhi**

VP of Product Management and Chief Product Officer

**Gregg Holzrichter**

VP of Marketing and Chief Marketing Officer

**Wendell Laidley**

VP of Finance and Chief Financial Officer

**Joe Palazola**

VP of Operations and Customer Support

**Jeffrey Wang**

VP of Engineering

Big Switch's mission is to disrupt the status quo of networking with order of magnitude improvements in network efficiency, intelligence and agility by delivering Next-Generation Data Center Networking. We enable data center transformation and accelerate business velocity by delivering a responsive, automated, and programmable software-defined networking (SDN) fabric-based networking solution. Traditionally, the network has been viewed as the barrier to data center transformation as legacy networking architectures hinder IT organizations with brittle, complex and cumbersome switch-by-switch management paradigms and inflexible, proprietary hardware choices that are increasingly unable to keep up with the pace required of businesses today.

From its inception, innovation velocity has been a pillar of Big Switch Networks core principles, with the company consistently delivering differentiated solutions and features to meet the requirements of the most agile and innovative customers.

The data center is no longer infrastructure-centric, but rather a fast moving, fast growing distributed-application environment. By harnessing the power of software-defined networking technology and coupling it with industry standard hardware, Big Switch Networks advances business competitiveness with an agile, flexible, intelligent and secure solution so IT organizations can experience a true Next-Generation Data Center Network.

## PRODUCT PORTFOLIO

Big Switch Networks is at the forefront of the next-generation of networking technologies. By combining industry standard switch hardware ("white box / branded white box "brite box") with intelligent SDN control software, the company is delivering next-generation data center networking fabrics for the world's most advanced data centers looking to achieve unmatched degrees of network automation at cloud-competitive price points.

Big Switch Networks has two data center networking solutions: Big Cloud Fabric, a data center switching fabric for OpenStack clouds or VMware virtualization environments, and Big Monitoring Fabric, a network packet broker that enables pervasive security and security, monitoring data center traffic for inline or out-of-band deployments. Big Switch is taking three key technologies: vendor agnostic switch hardware, SDN control software, and core-and-pod data center designs –and leveraging them for use in next-generation data center switching and monitoring solutions designed for use in enterprises, cloud providers, and service providers.

All Big Switch solutions run on high-performance open networking switches from Accton or Dell Technologies and leverage centralized SDN controller software for fabric-wide control and management.



**Big Cloud Fabric™** delivers next-generation data center networking — the promise of hyper-scale agility, economics and operational simplicity delivered to OpenStack Platform clouds or VMware virtualization environments. BCF is the industry's first leaf/spine SDN fabric to support open networking switches. In OpenStack environments, the BCF controller acts as a single pane of glass for network provisioning, troubleshooting, visibility and analytics of the entire physical and virtual network environment, delivering tremendous improvements in network agility, automation and operational efficiency. In VMware environments, BCF connects with vCenter APIs to provide physical network automation and visibility for vSphere, and can serve as a network fabric underlay for VMware NSX™ network virtualization deployments.



**Big Monitoring Fabric™** is a next-generation network packet broker (NPB) that leverages SDN principles, Open Networking switches and a high-performance x86-based DPDK service node to provide feature-rich, scale-out data center monitoring at up to 50% less cost than traditional NPBs. Big Monitoring Fabric supports 1G, 10G, 40G, 100G for the most demanding and high volume network monitoring and security environments. Customer use cases for Big Monitoring Fabric include: monitor every rack, monitor every location, monitor mobile/LTE networks and DMZ/Extranet Inline security.

Get hands-on experience with our offering, register for a free online trial at: [labs.bigswitch.com](http://labs.bigswitch.com)

Contact our sales team at: [sales@bigswitch.com](mailto:sales@bigswitch.com)

For general inquiries contact us at: [info@bigswitch.com](mailto:info@bigswitch.com)

## **Big Monitoring Fabric** For Existing Data Centers



Pervasive Visibility & Security

## **Big Cloud Fabric** New Pods in Existing Data Centers



Private Cloud  
Pod

Big Data  
Pod

VDI  
Pod

**Figure 1:** Getting to Hyperscale next-generation with intelligent, agile, flexible solutions

## UNDERLYING TECHNOLOGY

To bring complete solutions to market, Big Switch Networks' SDN fabrics leverage the company's Switch Light™ network operating system (NOS) in the data plane, sharing the same codebase and operational model across a range of physical hardware platforms and hypervisors. In conjunction with a centralized Big Cloud Fabric or Big Monitoring Fabric SDN controller, Switch Light enables dramatic reductions in the cost of your network operations and eliminates time-consuming, manual procedures by enabling central provisioning, automation and troubleshooting.

The **Switch Light OS** is an open networking hardware switch OS purpose built for SDN, while the **Switch Light VX** is a high performance SDN vSwitch for Unified Physical + Virtual solutions for OpenStack deployments.

## OPEN PHILOSOPHY

Since inception, Big Switch Networks has been an active member and contributor to a number of open source consortiums. Core to the company's engineering philosophy is a component-based approach, where open source and commercial modules exist side-by-side. When combined with a strong ethos of engineering design, this leads to a higher quality product experience in the near-term, faster innovation in the mid-term and more customer choice in the long-term.

At this time we are active members of three open source communities:

**OpenStack:** The company has participated both as a downstream user of OpenStack, a commercial entity in the OpenStack product ecosystem and as a significant upstream contributor.

**The Open Compute Project:** Big Switch Networks co-sponsored the contribution of **ONIE** (Open Network Install Environment), and most recently led the contribution of **Open Network Linux**.

**The Open Networking Foundation:** Big Switch Networks employees have chaired multiple working groups, including the Architecture Working Group and the Technical Advisory Group.

In addition to contributions as a member in large community work, the company has actively contributed to its own open source projects; Project Floodlight® and Project Indigo. To learn more about our Open Philosophy, please visit <http://bigswitch.com/go-open>.

## PARTNER ECOSYSTEM

Software innovation paired with widely available bare metal and open hardware allows Big Switch Partners to bring SDN solution leadership to market. Big Switch partners include resale and technology partners, as well as strategic partnerships with **Dell** and **VMware**. All of our joint solutions offer customers the broadest range of deployment options to drive new levels of business agility, flexibility and reduced cost of ownership of network operations.

To learn more about our partners and partnership opportunities, please visit: [www.bigswitch.com/partners](http://www.bigswitch.com/partners)

## COMPANY BACKGROUND

Big Switch Networks was founded in 2010, with roots in the original Stanford research team that invented software-defined Networking (SDN), and the company is widely considered one of the original pioneers of SDN. In 2013 the company made available its first commercial product, Big Monitoring Fabric™ for network visibility and security and in 2014 the company released Big Cloud Fabric™, a hyperscale-inspired data center switching fabric. While data center switching and network monitoring is a primary area of focus, both solutions break down the silos in the data center with open APIs and programmable SDN fabrics, facilitating integration and automation that spans servers and storage to help customers around the world realize the benefits of a truly software-defined data center.

## LEARN MORE

Whether you want to build an IaaS cloud or monitor legacy networks, move to a fabric architecture or build a bare metal SDN pod. We can help. Choose a project where we can start and call us in. To get the latest updates, connect with us at:

\* Blog: [www.bigswitch.com/news-events/sdn-blog](http://www.bigswitch.com/news-events/sdn-blog)

\* Twitter: Follow us @bigswitch

\* LinkedIn: [www.linkedin.com/company/1011021](http://www.linkedin.com/company/1011021)

\* Facebook: [www.facebook.com/bigswitchnetworks](http://www.facebook.com/bigswitchnetworks)

\* YouTube: [www.youtube.com/user/bigswitchnetworks](http://www.youtube.com/user/bigswitchnetworks)



### Headquarters

3965 Freedom Circle, Suite  
300, Santa Clara, CA 95054

+1.650.322.6510 TEL  
+1.800.653.0565 TOLL FREE

[www.bigswitch.com](http://www.bigswitch.com)  
[info@bigswitch.com](mailto:info@bigswitch.com)

Copyright ©2016 Big Switch Networks, Inc. All rights reserved. Big Switch Networks, Big Cloud Fabric, Big Monitoring Fabric, BigSecure, Big Chain, Switch Light OS, and Switch Light VX are trademarks or registered trademarks of Big Switch Networks, Inc. All other trademarks, service marks, registered marks, or registered service marks are the property of their respective owners. Big Switch Networks assumes no responsibility for any inaccuracies in this document. Big Switch Networks reserves the right to change, modify, transfer or otherwise revise this publication without notice. BSN At a Glance V3 December 2016